P.03/21

Application No. <u>09/155.982</u> Attorney's Docket No. 032475-001 Page 2

CLAIM SUMMARY DOCUMENT:

Claims 1-39 (Cancelled)

Claim 40 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment, which recognizes a 150 kDA T. equigenitalis protein.

Claim 41 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with at least one antibody or Fv, Fab or F(ab')² fragment thereof which recognize T. equigenitalis proteins selected from the group consisting of T. equigenitalis proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 42 (New) An isolated monoclonal antibody, which can be obtained from hybridomas by a method comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized against an inactivated strain of the species T. equigenitalis or extract(s) of such a strain,

cloning and selecting according to the capacity of their culture supernatant to recognize a 150 kDA T. equigenitalis protein,

recovering the required monoclonal antibody, and optionally purifying said monoclonal antibody.

Claim 43 (New) A method of obtaining a monoclonal antibody according to claim 40, comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized by means of a strain of the species T. equigenitalis or extract(s) from such a strain,

screening hybridomas whose culture supernatants exhibit a positive reaction with a 150 kDA *T. equigenitalis* protein or a fragment thereof,

selecting by cloning the hybridomas with respect to their reactivity, in relation to T.

equigenitalis,

recovering the monoclonal antibody, and optionally purifying said monoclonal antibody.

Claim 44 (New) A strain of hybridoma, which is capable of secreting a monoclonal antibody according to claim 40.

Claim 45 (New) A method of identification of a bacterium of the species Taylorella equigenitalis (T. equigenitalis) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain T.

equigenitalis, into contact with an effective quantity of a monoclonal antibody or Fv, Fab or $F(ab')^2$ fragment thereof according to claim 40, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species T. equigenitalis.

Claim 46 (New) A method of diagnosis of an infection by Taylorella equigenitalis (T. equigenitalis) comprising:

bringing a monoclonal antibody or fragment thereof according to claim 40, into contact with a biological sample, and

detecting the reaction of the antigen-antibody type which is produced when T.

equigenitalis is present in the sample.

Claim 47 (New) The method according to claim 45, further comprising blocking the non antigen-antibody reactions.

Claim 48 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 40,
a reagent for detecting the intended immunologic reaction,
optionally, a reagent for blocking the non antigen-antibody reactions, and
instructions for use.

Claim 49 (New) A pharmaceutical composition comprising a monoclonal antibody or fragment according to claim 40, in combination with a pharmaceutically inert vehicle.

Claim 50 (New) A kit according to claim 48, wherein said reagent for carrying out the intended immunologic reaction is selected from the group consisting of markers and buffers.

Claim 51 (New) A kit according to claim 48, wherein a reagent for blocking the non antigenic-antibody reaction is included and said reagent is mouse serum.

Claim 52 (New) The method according to claim 47, wherein the non antigenantibody reaction is blocked by saturation of the specimen obtained by means of a serum from which anti-T. equigenitalis antibodies have been removed.

Claim 53 (New) The method according to claim 46, further comprising blocking the non antigen-antibody reactions.

Claim 54 (New) An isolated monoclonal antibody or its Fv, Fab or $F(ab')^2$ fragment according to claim 40, in combination with antibodies or Fv, Fab or $F(ab')^2$ fragments thereof which recognize T. equigenitalis proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 55 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.

Claim 56 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

Claim 57 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

Claim 58 (New) An isolated monoclonal antibody or its Fv, Fab or $F(ab')^2$ fragment according to claim 42, in combination with at least one antibody or Fv, Fab or $F(ab')^2$ fragment thereof which recognizes a *T. equigenitalis* protein selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 59 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with antibodies or Fv, Fab or F(ab')² fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 60 (New) An isolated monoclonal antibody or its Fv, Fab or $F(ab')^2$ fragment according to claim 42, in combination with an antibody or Fv, Fab or $F(ab')^2$ fragment thereof which recognizes a 120 kDA T. equigenitalis protein.

Claim 61 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

Claim 62 (New) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

Claim 63 (New) A strain of hybridoma, which is capable of secreting the monoclonal antibody according to claim 42.

Claim 64 (New) A method of identification of a bacterium of the species Taylorella equigenitalis (T. equigenitalis) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain T.

equigenitalis, into contact with an effective quantity of the monoclonal antibodies or Fv,

Fab or $F(ab')^2$ fragments thereof according to claim 41, under conditions permitting a

reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species T. equigenitalis.

Claim 65 (New) A method of identification of a bacterium of the species Taylorella equigenitalis (T. equigenitalis) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain T.

equigenitalis, into contact with an effective quantity of the monoclonal antibody or Fv, Fab or $F(ab')^2$ fragment thereof according to claim 42, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species T. equigenitalis.

Claim 66 (New) A method of identification of a bacterium of the species Taylorella equigenitalis (T. equigenitalis) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain T.

equigenitalis, into contact with an effective quantity of the monoclonal antibodies or Fv,

Fab or $F(ab')^2$ fragments thereof according to claim 54, under conditions permitting a

reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species T. equigenitalis.

Claim 67 (New) A method of identification of a bacterium of the species Taylorella equigenitalis (T. equigenitalis) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain T.

equigenitalis, into contact with an effective quantity of the monoclonal antibodies or Fv,

Fab or $F(ab')^2$ fragments thereof according to claim 58, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species T. equigenitalis.

Claim 68 (New) A method of identification of a bacterium of the species Taylorella equigenitalis (T. equigenitalis) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain T.

equigenitalis, into contact with an effective quantity of the monoclonal antibodies or Fv,

Fab or $F(ab')^2$ fragments thereof according to claim 59, under conditions permitting a

reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type, wherein said product is indicative of the presence of a bacterium of the species T. equigenitalis.

Claim 69 (New) A method of diagnosis of an infection by Taylorella equigenitalis (T. equigenitalis) comprising:

bringing the monoclonal antibodies or fragments thereof according to claim 41 into contact with a biological sample, and

Page 10

detecting the reaction of the antigen-antibody type which is produced when T. equigenitalis is present in the sample.

Claim 70 (New) A method of diagnosis of an infection by Taylorella equigenitalis (T. equigenitalis) comprising:

bringing the monoclonal antibody or fragment thereof according to claim 42 into contact with a biological sample, and

detecting the reaction of the antigen-antibody type which is produced when T. equigenitalis is present in the sample.

Claim 71 (New) A method of diagnosis of an infection by Taylorella equigenitalis (T. equigenitalis) comprising:

bringing the monoclonal antibodies or fragments thereof according to claim 54 into contact with a biological sample, and

detecting the reaction of the antigen-antibody type which is produced when T. equigenitalis is present in the sample.

Claim 72 (New) A method of diagnosis of an infection by Taylorella equigenitalis (T. equigenitalis) comprising:

bringing the monoclonal antibodies or fragments thereof according to claim 58 into contact with a biological sample, and

detecting the reaction of the antigen-antibody type which is produced when T.

equigenitalis is present in the sample.

Claim 73 (New) A method of diagnosis of an infection by Taylorella equigenitalis (T. equigenitalis) comprising:

bringing the monoclonal antibodies or fragments thereof according to claim 59 into contact with a biological sample, and

detecting the reaction of the antigen-antibody type which is produced when T.

equipmentalis is present in the sample.

Claim 74 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the monoclonal antibodies or fragments according to claim 41, reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 75 (New) A kit for application of a method of identification of a bacterium of the species Taylorella equigenitalis (T. equigenitalis) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 42,

reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 76 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the monoclonal antibodies or fragments according to claim 54, reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 77 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the monoclonal antibodies or fragments according to claim 58, reagents for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 78 (New) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the monoclonal antibodies or fragments according to claim 59, reagents, for detecting the intended immunologic reaction, optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 79 (New) A pharmaceutical composition comprising the monoclonal antibodies or fragments according to claim 41, in combination with a pharmaceutically inert vehicle.

Claim 80 (New) A pharmaceutical composition comprising the monoclonal antibody or fragment according to claim 42, in combination with a pharmaceutically inert vehicle.

Claim 81 (New) A pharmaceutical composition comprising the monoclonal antibodies or fragments according to claim 54, in combination with a pharmaceutically inert vehicle.

Claim 82 (New) A pharmaceutical composition comprising the monoclonal antibodies or fragments according to claim 58, in combination with a pharmaceutically inert vehicle.

Claim 83 (New) A pharmaceutical composition comprising the monoclonal antibodies or fragments according to claim 59, in combination with a pharmaceutically inert vehicle.